IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An optical apparatus comprising: ~~having an adjustment apparatus and~~

an optical unit comprising a plurality of optical elements;[[,]]

an ~~said~~ adjustment apparatus configured to output ~~sequentially providing~~ control signals which ~~that~~, according to a genetic algorithm ~~probabilistic search technique~~, make adjustment of ~~change~~ parameters of a stipulated plurality of optical elements among said plurality of optical elements and which search for optimal parameter values at which ~~to become parameters that cause~~ functions of said optical apparatus satisfy stipulated specifications;

a memory that stores a plurality of pairs of parameter values measured during the adjustment of the parameters by said control signals and observation values of output light obtained simultaneously with measurement of said pairs of parameter values; and

means for selecting among said plurality of pairs a pair which has a largest evaluation value and replacing a solution candidate of the genetic algorithm with the parameter values of the selected pair.

Claims 2-3 (Canceled).

Claim 4 (Currently Amended): The optical apparatus according to claim 1 ~~any of claims 1-3~~, wherein said adjustment apparatus uses an evaluation function that performs weighted sum of a plurality of evaluation results of a state of the functions of the optical apparatus.

Claim 5 (Canceled).

Claim 6 (Currently Amended): The optical apparatus according to claim 1 ~~any of claims 1-3~~, wherein the optical unit ~~comprising said optical elements~~ is a laser.

Claim 7 (Currently Amended): The optical apparatus according to claim 1 ~~any of claims 1-3~~, wherein said stipulated plurality of optical elements comprise a deformable mirror.

Claim 8 (Currently Amended): The optical apparatus according to claim 7, wherein the optical unit ~~comprising said optical elements~~ is a wave-front controller.

Claim 9 (Currently Amended): The optical apparatus according to claim 7, wherein the optical unit ~~comprising said optical elements~~ is a telescope.

Claims 10-11 (Canceled).

Claim 12 (Currently Amended): A method of adjusting an optical apparatus that controls a plurality of optical elements constituting an optical unit, comprising the steps of:

sequentially providing control signals that, according to a genetic algorithm ~~probabilistic search technique~~, make adjustment of ~~change~~ parameters of a stipulated plurality of optical elements among said plurality of optical elements;[[, and]]

searching for optimal parameter values at which functions of said optical apparatus satisfy stipulated specifications;

storing in a memory a plurality of pairs of parameter values measured during adjustment of the parameters by said control signals and observation values of output light obtained simultaneously with measurement of said pairs of parameter values;

selecting among said plurality of pairs a pair which has a largest evaluation value; and

replacing a solution candidate of the genetic algorithm with the parameter values of the selected pair.

Claims 13-14 (Canceled).

Claim 15 (Currently Amended): The method according to claim 12 [[14]], wherein a function that performs weighted sum of a plurality of evaluation results of a state of the functions of the optical apparatus is used as an evaluation function.

Claim 16 (Canceled).

Claim 17 (Currently Amended): The method according to claim 12 ~~any of claims 12-14~~, wherein ~~it~~ the method adjusts parameters of the optical elements constituting the optical unit used as a laser.

Claim 18 (Currently Amended): The method according to claim 12 ~~any of claims 12-14~~, wherein ~~it~~ the method adjusts the parameters of the stipulated plurality of optical elements comprising a deformable mirror.

Claim 19 (Currently Amended): The method according to claim 18, wherein ~~it~~ the method adjusts parameters of the optical elements constituting the optical unit used as a wave-front controller.

Claim 20 (Currently Amended): The method according to claim 18, wherein ~~it~~ the method adjusts parameters of the optical elements constituting the optical unit used as a telescope.

Claim 21 (Canceled).

Claim 22 (Currently Amended): An adjustment apparatus comprising an electronic computer and recording media which said electronic computer can read, wherein said adjustment apparatus performs adjustment by the method of claim 12 ~~any of claims 12-14~~.

Claim 23 (Currently Amended): Recording media that store an adjustment program that performs the adjustment according to claim 12 ~~any of claims 12-14~~.